

ARCHITECTURAL KINSHIP: BALI'S MERU AND HIMACHAL'S PAGODA TEMPLES

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Abstract

This article explores a striking architectural kinship between temples of two geographically distant yet culturally linked regions within the broader Hindu sphere. The study focuses on the shared multi-tiered, pyramidal roof form—manifested as the Meru tower in Bali and the pagoda-style temples of the Himalayan region—as a key indicator of a common symbolic and architectural lineage rooted in the concept of Mount Meru. While emphasizing this structural similarity, the article also analyses significant differences in layout, materials, and construction techniques shaped by climatic and environmental conditions. Balinese temples exhibit open, courtyard-based planning with stone and thatch, whereas Himachali temples are compact, timber-stone structures adapted to alpine conditions. Together, these building design styles illustrate cultural diffusion alongside regional adaptation. The image on right demonstrates the pagoda-style temple of Uluwatu in Bali as an example.



1. Introduction

The architectural similarities between Balinese temples and the pagoda-style shrines of some Himalayan regions such as those in Mandi district of Himachal Pradesh, and in Nepal, represent a compelling example of diffused architectural influence within the broader Hindu and Buddhist cultural sphere (1). The present analysis centres on the striking resemblance in the **multi-tiered roof structure**, a design principle that contrasts sharply with the dominant *Nagara* (curvilinear spire) style typical of North Indian temples (2). The analysis is structured around the multi-tiered roofing style that links these temples. The significance of the Mandi region of Himachal is underscored by its housing of several temples to Rishi Markanda, all in Pagoda style. Notably,

the temple structures at Bali island all owe their origin to Rishi Markanda, who is credited with laying the foundation of the massive Besakih temple in Bali, and is believed to have introduced the religious practices of Hinduism to Java and Bali (3).

2. The architectural design of the Mandi and Balinese temples

The temple architecture of Bali Island in Indonesia, and the province of Mandi in the Himalayan state of Himachal Pradesh, India, appear vastly different at first glance, separated by thousands of miles of ocean. Balinese *Pura* are renowned for their open courtyards and intricate stonework, while Himachali temples like the Parashar Rishi Temple at Parashar Lake and the Shukdev

Figure 1. The Meru represents the cosmic Mount Meru, and is



constructed in Bali as a multi- roofed tower.

Temple at Thatta are characterized by robust wooden construction (4). Yet, a closer examination reveals a remarkable commonality in the architectural elements of their roofing: the multi-tiered, pyramidal roof structure, suggests a deep-rooted, shared architectural lineage across Asia (1,5).

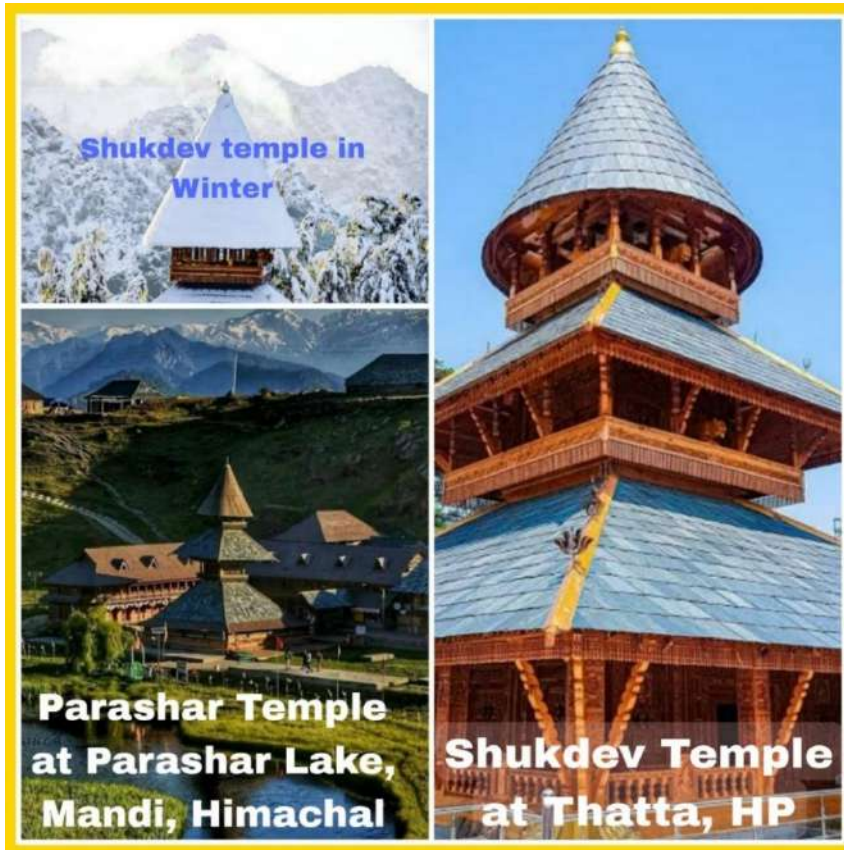


Figure 2. In Mandi region of Himachal are located the pagoda-styled temples of Rishi Parashar, and his grandson Shukdev muni. Rishi Markandey was a contemporary of these rishies, and there was rich interaction amongst them.

Balinese temple architecture is fundamentally guided by the *Tri Mandala* principle, which divides the sacred space into three concentric zones, with the *Utama Mandala*, the holiest zone, in the inner courtyard (6). Within this innermost zone stands the central shrine, the *Pelinggih Meru*, the *padmasana* (throne of the supreme god), and other sacred structures. The *Meru* is a multi-roofed tower, resembling a pagoda (Figure 1), which is a symbolic representation of Mount Meru, the divine mountain and axis of the universe in Hindu-Buddhist cosmology (7). Mount Meru also served as the churner during the historic *Samudra manthan* (churning of the ocean of milk), carried out collectively by the Asuras and Devas in ancient times. The stacked roofs of the *Meru* shrine, which can number from three to eleven in number, are typically made of *ijuk* (black palm fiber thatch), and their verticality acts as a spiritual bridge for the gods to descend to Earth (8). The overall structure underscores open space, intricate lava-stone carving, and dramatic split gates (*Candi Bentar*) that frame the view toward the inner sanctum.

In Mandi and Kullu districts of Himachal, the temples of the mid and high hills adhere to local architectural styles primarily designed to withstand heavy rainfall and snow (9,10). The Parashar Rishi Temple, built in the 14th century, is a prime example of the Himachali "Pagoda" style (Figure 2). Like the *Meru* in Bali, this temple features two to three storeys of slanting wooden roofs, each slightly smaller than the one below.

Similarly, the Shukdev Temple at Thatta, built in the same regional tradition, utilizes the indigenous *Kath Kuni* technique—a robust, timber-laced stone construction—with the multi-tiered roof serving as the defining feature (11,12). The emphasis here is on durability, local deodar wood, and functional protection from the climate, rather than the Balinese focus on open-air courtyard.

Despite the differences in material (stone and thatch in Bali vs. wood and slate in Himachal) and primary function (spiritual axis vs. climatic resilience), the shared tiered roof form is undeniable. This resemblance is due to the diffusion of the "Pagoda style" across the Indian subcontinent and Southeast Asia (1,5). Originating perhaps from the tiered roofs of ancient Indian stupas, the Pagoda style gained prominence along historic trade routes and through the spread of Mahayana Buddhism and Hinduism. In both the Himalayan region and the Indonesian archipelago, the design was adapted to local materials—wood in the cold Himalayas and thatch in the tropical climates. There may also be a health angle to the pyramidal roof design, as discussed later. But the core symbolic message of vertical ascent and proximity to the heavens remains central. This architectural kinship offers compelling evidence of the profound and ancient cultural exchange that linked the highlands of India with the islands of Southeast Asia.

3.The Diversity and Intricacy of Temple Complexes in Bali

3a. The Tri Mandala Concept of spatial organization in Balinese architecture

The concept of three distinct zones or spaces, is common across temples, palaces, villages, and even family compounds in Bali. In fact, it is a core principle in Balinese Hindu spatial organization, that divides physical spaces into three distinct zones based on their level of sacredness (6,12). The three zones can be called as outer, middle and inner, though the significance goes much deeper.

* Nista Mandala (Outer Zone): This is the outermost and least sacred area. It acts as a public transition space from the profane world and is typically used for preparation and gatherings, such as gamelan performances.

* Madya Mandala (Middle Zone): Functioning as a semi-sacred intermediary space, this zone is used for ritual preparations and storage. Symbolically, it represents human life and the balance between the physical and spiritual realms.

* Utama Mandala (Inner Zone): This is the holiest and most sacred focal point of worship. It represents the divine realm and houses the primary altars and shrines, such as the multi-tiered meru.

The *Tri Mandala* divides not just horizontal space but also adheres to *Tri Loka* — the vertical concept of the underworld (*bhur*), earth (*bwah*), and heavens (*swah*). This concept is also often aligned with cardinal directions and natural features (like mountains), reflecting *Tri Hita Karana* — the harmony between humans, nature, and the divine. Balinese temples are built using the Tri-mandala concept on multiple scales, from temples in the residential land of each family unit, to temples belonging to the entire village. Hence, in a traditional Balinese setting, you'll find two main categories of sacred structures: Shrines within each home compound, and a common shrine for the entire village.

3b.Shrines within the Home Compound

Every traditional Balinese family compound must include a family shrine, which is typically located in the most sacred direction (the northeast corner, facing Mount Agung, the sacred mountain). The family shrine is not a single building but a collection of structures collectively called the “*Sangghah*” (for common families) or *Merajan* (for Brahman families). These shrines are for honouring ancestors, specific gods, and other spirits, and are considered the spiritual centre of the home where daily offerings and prayers are made to maintain

harmony between the family, nature, and the divine (13). The shrines in the family homes are described below, and shown in Figure 3.

Key shrines within the home compound (Table 1) include :



Figure 3. Image of the three shrines within each Balinese home compound.

- a) Sanggah Kemulan (The Core Shrine): This is the most important structure, usually having three-compartments, representing the three aspects of the supreme God (Ida Sang Hyang Widhi Wasa) and the deified ancestors. It connects the living family members to their spiritual lineage.
- b) Pelinggih Taksu: A shrine dedicated to the *taksu*, the spiritual aspect and charisma of the family. Families pray here for success in their professions, arts, and daily life.
- c) Pelinggih Penunggun Karang: The "Guardian of the Home Compound," this shrine honours the spirit of the land the house is built on. Its purpose is to repel negative forces and maintain stability in the residence (14).

Table 1. Shrines in the Balinese homes and Their Significance

Shrine Name	General Name	Primary Function and Significance
Sanggah Kemulan	Core Shrine	The most sacred shrine. It features three compartments (Rong Tiga) representing the Hindu trinity (Brahma, Vishnu, Shiva) and serves as the

		dwelling place for the deified ancestors (<i>Leluhur</i>).
Pelinggih Taksu	Talent Shrine	Dedicated to the spiritual talent and charisma (<i>Taksu</i>) of the family. It's where the family prays for success in their endeavours and professions.
Pelinggih Penunggu Karang	Land Guardian Shrine	Honours the guardian spirit of the land on which the house is built. It protects the entire compound from malevolent forces and ensures peace.

3c. Temples within the Village (Table 2) :

Every village is required to maintain a triad of three essential public temples known as the *Pura Kahyangan Tiga*, which depict the principle of the three core aspects of all life – Creation, Preservation and Destruction (Figure 4). The *Pura Kahyangan Tiga* temples are essential to the Balinese spatial and religious concept, linking the village to the mountains and the sea (15).

Here is a brief description of each of the three temples :

a) Pura Puseh (Temple of Origin/Ancestors):

Dedicated to Brahma (The Creator) and the founding ancestors of the village. It is always located in the direction *kaja* (towards the mountains/source of life) and is considered the earliest or most sacred temple, symbolizing the beginning and the spiritual origins of the community.



Figure 4. Image of the triad of temples in a Balinese village. The villagers in Bali collectively maintain the village temple. Gambuh dance, considered a sacred art, is performed during temple festivals, especially at Batuan.

b) Pura Desa (Vishnu Temple):

Dedicated to Vishnu (The Preserver), this temple is located in the centre of the village, or between the Pura Puseh and Pura Dalem. It serves as the main communal gathering space for official religious ceremonies and village governance, representing the preservation and ongoing life of the community.

c) Pura Dalem (Temple of the Dead):

Dedicated to Shiva (The Destroyer) and his consort Durga, it is always located in the direction *kelod* (towards the sea/place of dissolution and impurity) and is associated with death, funerals, and the graveyard. It ensures balance by honoring the transformative forces necessary for rebirth.

Thus, it is clear that these three public temples, which are the spiritual backbone of any Balinese village, embody the complete cycle of life, destruction, and preservation. This arrangement ensures that the spiritual life of the Balinese Hindu community—from birth (Pura Puseh) to life (Pura Desa) to death (Pura Dalem)—is continuously observed and harmonized within the principles of “Tri Hita Karana” (harmony between humans, nature, and God).

Table 2. The Triad of Temples in each Balinese Village

Temple Name	Presiding Deity	Symbolic Life Stage	Location (Orientation)
Pura Puseh	Lord Brahma (God of Creation) and village founders	Origin and foundation (Birth)	Towards the mountain (Kaja), the sacred, upstream direction
Pura Desa	Lord Vishnu (God of Preservation) or local governing spirits	Life and the community’s daily activities	Central in the village, representing the middle realm
Pura Dalem	Lord Shiva or Goddess Durga (God/Goddess of Destruction)	Death, dissolution, and the cycle of reincarnation	Towards the sea (Kelod), the downstream, less sacred direction, often near the graveyard

4. Architectural correspondences and disparities between Balinese pura vs. Himachali pagoda temples

There exist core structural similarities and regional adaptations of the Balinese Hindu *Meru* towers and the **Pagoda-style** temples of Himachal Pradesh, specifically the **Parashar Temple (Mandi)** and the **Shukdev Temple (Thatta)**. A comparison between the two styles reveals a shared lineage in the vertical, tiered design, but profound differences in materials and spatial organization necessitated by climate and local tradition.

4.1. The Core Similarity: Multi-Tiered Roof (The Pagoda Form)

The most striking and central point of comparison is the use of a stacked, pyramidal, multi-tiered roof structure (Table 3).

Table 3. Comparative Features: Balinese Meru (Pura) and Himachali Pagoda

Feature	Balinese Meru (Pura)	Himachali Pagoda
Structural Name	Meru (Refers to Mount Meru, the cosmic mountain).	Pagoda Style (Regional adaptation of the South/East Asian pagoda tradition).
Purpose	Shrine tower over the main deity or Padmasana (empty throne for the Supreme God, Acintya).	Sanctuary (Garbha Griha) over the primary idol, often for local devtas such as Rishi Parashar.
Tier Count	Always uses odd numbers of tiers (3, 5, 7, 9, 11), symbolizing sanctity and the temple’s hierarchical importance (Sitinjak, 13).	Typically uses three or four superimposed roofs of diminishing size (Sharma, 11).

Significance of these architectural features : The Meru and Pagoda forms depart from the classical Nagara tower (shikhara) style of North India, suggesting a shared ancient architectural concept rooted in the sacred mountain concept. The Parashar temple, built by Raja Ban Sen of Mandi in the 14th century, and the Shukdev temple, are prime example of this style in the hills of Himachal (Sharma, 11).

4.2.Key Architectural Differences (Adaptation and Layout)

While the roof structure is similar, the overall layout, materials, and climate adaptations show that these are two highly localized traditions.

LAYOUT DIFFERENCES

Balinese **Pura** temples follow a **Tri Mandala spatial hierarchy** (outer, middle, inner courtyards) organized through open courtyards, gates, and pavilions aligned with cosmological orientation. In contrast, Himachali **Pagoda temples** are **compact, vertically oriented, free-standing structures**, focusing on a central sanctum enclosed within timber-stone architecture suited to seismic and alpine conditions (Table 4)

Aspect	Balinese Pura (Tri Mandala)	Himachali Pagoda (Free-Standing)
Overall Layout	Complex, expansive, and organized by the <i>Tri Mandala</i> principle (three zones of sanctity): <i>Nista</i> (outer), <i>Madya</i> (middle), and <i>Utama</i> (innermost and holiest, housing the Meru) (Sitinjak, 13).	Simple, often a single, free-standing primary structure focused on the sanctuary. Supplementary structures are usually separate pavilions or community halls.
Entrance Gates	Highly distinct, intricately carved gates define the transition between zones: the split <i>Candi Bentar</i> (outer gate) and the	Entrance is typically a single, carved doorway into the main wooden structure. Elaborate gate

	roofed <i>Kori Agung/Paduraksa</i> (inner gate).	systems are absent.
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Table 4. Spatial Organization (Layout)

MATERIALS AND CONSTRUCTION

Balinese **Pura** temples use **volcanic stone, brick, bamboo, and thatch (alang-alang)**—light, breathable materials suited to humid tropical climates. Open construction and permeable walls enhance ventilation and heat dissipation. In contrast, Himachali **Pagoda temples** employ **deodar cedar timber and local stone**, often in the **Kathkuni** technique, creating thick, interlocking walls that provide **thermal insulation, structural stability, and resistance to snow loads and earthquakes** in the cold Himalayan alpine environment (11,12). A comparison of the materials used in constructing the Balinese and Mandi temples is given in Table 5.

Aspect	Balinese Pura (Tropical)	Himachali Pagoda (Alpine)
Primary Material	Volcanic stone (for foundations/walls), red brick, and light organic materials like bamboo, coconut wood, and thatch (alang-alang) for roofing.	Heavy Deodar Cedar wood and local stone, often using the Kathkuni style (interlocking timber and stone without mortar) for seismic resistance and thermal insulation against snow (Sharma, 11).
Roofing Type	Grass thatch, which is excellent for ventilation and cooling in a tropical, humid climate.	Stone slate or wooden shingles, designed to shed heavy snowfall and rain. The slopes are steeper and more robust to handle the Himalayan climate.

Table 5. Materials and Construction (Climate Adaptation)

Discussion

The Markandey and other Pagoda-style temples in Mandi district, are significant by reason of deep spiritual association. The foundations of Hinduism and temple architecture in Bali island are attributed to Rishi Markandey, who was a disciple of Sage Ved Vyas, the son of Rishi Parashar. Markandey was born in the Bhrigu lineage, to Rishi Mrikandu, and Muni Ved Vyas had performed the religious ceremonies at the birth of Markandey. Hence, the associations between the sages Ved Vyas, Parashar and Markandey, run very deep and are profound, since all three were adept at Atharva-veda, the text dealing with the healing arts, ancestor-worship, totems, spells and occult practices. In fact, in the ancient Rig vedic era, healing was conducted solely through *Mantras* (chants) and spells, rather than herbs. The Atharva veda was developed in a time frame later to Rig-Veda, and contains knowledge dealing with the healing practices, incantations, herbs, minerals, alchemy and the like.

It may be noted that Markandey was destined to live only for sixteen years, but was able to defeat Yama, the God of Death, due to his rigorous spiritual practices undertaken under the instructions of great Masters such as Parashar and Vashisht. Such powerful were the endeavours of Markandey, that he not only conquered death, but also became an immortal (*Chiranjeevi*). Hence, when Markandey reached Java, and decided to build a great temple in Bali, it is only reasonable to assume that the great but hidden principles dealt with in Atharva-veda, would have been utilized to create something unique. The existing cultural practices of ancestor worship,

temple ceremonies, temple architecture and religious rituals are all derived from the foundations laid by the great philosopher-saint Rishi Markandey. An analysis of these symbols and practices would reveal deeper significances and hints for attaining a higher spiritual realm. One of the most important symbols dominating the architectural landscape of Bali is the Meru.

In Balinese Hinduism, the Meru tower (Palinggih Meru) is perhaps the most iconic architectural feature of a temple (Pura). It is a multi-tiered shrine with thatched roofs made of black palm fibre (ijuk), representing both the cosmos and the dwelling place of the gods (8). At the base of a Meru, there is often a hidden chamber or a foundation stone containing a Pripih—a collection of metallic plates, incense, and sandalwood. This is considered the "soul" of the shrine, mirroring the internal spiritual energy of a human being.

The Meru serves several profound symbolic and functional purposes within the Balinese spiritual landscape:

a) Microcosm of Mount Mahameru: The tower is a physical representation of Mount Meru (Mahameru), the sacred mountain at the center of the universe in Hindu-Buddhist cosmology. Just as the gods reside atop Mahameru, they are invited to descend into the Meru tower during temple festivals (7).

b) The Vertical Hierarchy: The number of tiers (tumpang) is always an odd number (ranging from 1 to 11), reflecting the status of the deity or ancestor to whom the shrine is dedicated.

* 3–5 Tiers: Often dedicated to local deities or ancestors.

* 7–9 Tiers: Dedicated to higher-ranking deities or noble ancestors.

* 11 Tiers: The highest honour, reserved for the supreme manifestations of God (such as Shiva or Vishnu) or the most sacred mountains like Mount Agung.

c) The Axis Mundi: It acts as an axis mundi, a bridge connecting the human world (Bhurloka) with the divine spheres (Swahloka). During ceremonies, it serves as a temporary "vessel" for the divine spirit.



Figure 5. The Seraj area of Mandi district in Himachal Pradesh has several temples dedicated to Rishi Markandey. The doorway of the sanctum of one Markandey temple has engravings of the Rishi, The Mother Goddess and Vasuki Serpent (*Naag*).

The Meru symbol of Bali manifests as the multi-layered pagoda style temples in Himachal. The Balinese Meru and Himachali pagoda temples both symbolize cosmic mountains (Mount Meru) and express vertical sacred ascent, though the differing climatic conditions between the hot and humid Bali weather and cold Himalayan geography, with the latter also experiencing heavy snow, resulted in the use of different materials for construction. The basic pagoda or Meru style, though, remained a constant. The Himalayan temples use more of wood, employing the Kath-kuni style of building (16), while rock is the preferred in Bali. The temples dedicated to Rishi Markandey in Mandi, however, exhibit the basic elements of Markandey's philosophy prevalent in Bali. These include the worship of the Goddess and the great serpent Vasuki (Figure 5)

Conclusion

The architectural correspondence between the Balinese Meru towers and Himachali pagoda temples demonstrates the transmission of a shared sacred architectural paradigm across geographically distant regions.

Both forms embody the cosmological concept of Mount Meru as the axis mundi, expressed through vertically tiered superstructures symbolizing spiritual ascent and divine presence. This formal continuity likely reflects historical processes of cultural diffusion associated with the spread of Hindu and Buddhist traditions across South and Southeast Asia.

Despite this shared symbolic framework, regional adaptations are pronounced. In Bali, temple architecture emphasizes open, processional layouts employing stone and thatch suited to a tropical environment. In contrast, Himalayan temples utilize timber-stone construction (Kathkuni) with compact forms engineered for seismic resilience and heavy snowfall (16). This interplay of continuity and adaptation underscores how sacred architecture can simultaneously preserve universal symbolism and respond to local realities. Ultimately, the Meru–pagoda relationship serves as a powerful testament to the enduring unity and diversity within the Hindu architectural tradition.

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